

JUNE  
1951

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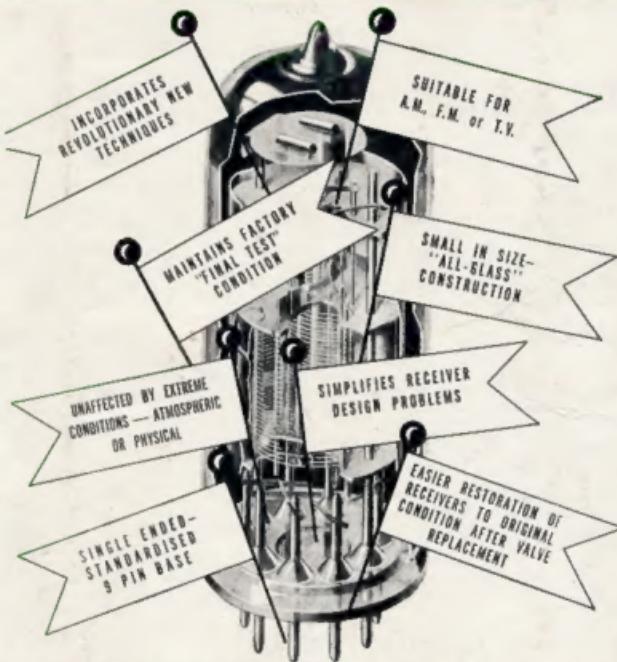
# Amateur Radio

JOURNAL OF  
THE WIRELESS  
INSTITUTE OF  
AUSTRALIA

For the Experimenter  
and Radio Enthusiast



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12/6 each (new) 45, 6B6, 6C4, 6L7, 834.

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50/- each—832.

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Packing Charge on all goods over 10 lbs. in weight, 5/- extra.

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## EDITORIAL



### Are the Defence Services Taking Full Advantage of the Trained Personnel Available from the Ranks of the Amateurs?

Up to date, of the three Active Services—Navy, Army, and the Air Force—only the Air Force has submitted a scheme directly to our members and even that scheme does not appear to be receiving as much enthusiasm and push from official Service quarters as it merits.

Many of our members served in the radar and communications branches of other arms of the Services during both world wars, and many of them—particularly the younger generation from the 1939-45 war—are expressing their disappointment at the absence of plans for them in the event of a third world war.

In view of the fine war record the Amateur has rightly earned from his ability, so ably demonstrated in the past, to take over in the event of a National Emergency, the Services could have a resolute backbone of well trained personnel who would only require relatively short training to fit themselves into Service routine.

It is hoped that before long the "permanent careerist" attitude at present so evident in the Services will give way to a saner and more sober realisation of the true worth of the Amateur—his vast capacity for enthusiastic national service and his desire to take a keen interest in preparing for all eventualities.

Why should he have to search vainly for an avenue to offer his services which should eagerly be sought by not only the three main arms of the Services, but also by Civilian Defence Organisations?

America and England have long since taken advantage of this ready-made source of technical personnel for the various branches of their military and civil organisations. It is hoped that the powers-that-be in Australia will grasp this advantage before it is too late.

There will be no time to think about it afterwards!

—FEDERAL EXECUTIVE

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# Homecrafts

## BARGAINS FOR THE RADIO ENTHUSIAST!

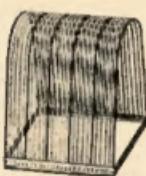
### METER BARGAINS



- ★ English Moving Cell 2 inch scale 200 ohms per volt. Two models, 0-20 volt or 0-40 volt. Ideal for home lighting plants. Only 18/11. Cost of rescaling to any amperage from 0-5 Ma. to 0-50 amps. or voltage to 100 volts 18/11.
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- ★ Thermo Ammeters, complete with thermo couple, 0-2.5 amp. or 0-3 amp. only 19/11
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Central 4311

## Simple Frequency Meter For Amateur Bands

BY DR. LEO H. McMAHON,\* VK2AC

An accurate Frequency Meter is a very handy instrument to have besides being prescribed by the regulations. Until the advent of the BC221 and its variations and the disposals 100 Kc. crystals, frequency meters in this country, for the most part, were not very accurate nor reliable. Even now, the 221 is not available to many and 100 Kc. crystals have to be built into quite a bit of gear to make a good frequency meter. 100 Kc. crystals have bugs all of their own and are not the simple things to handle the books would have you think.

The main points about a frequency meter are that it must be stable, its calibration must be accurate and its re-set stability must be reliable. The latter point is of great importance. What is the use of a frequency meter that will be accurately calibrated at one temperature and tomorrow at a different temperature will be up to two kilocycles out on 14 Mc. That is well within the bounds of possibility.

A "Clapp" was built on 1.75 Mc., taking all precautions towards stability. Even so, the frequency measured at 1 Mc. at any one setting varied up to 3 Kc. at different temperatures. If anybody thinks that is unusual, let him listen to the v.f.o.'s. in common use. A shift of a kilocycle on 14 Mc. in each over is about the rule. Before anybody challenges that statement let him listen to a few v.f.o.'s. with a reliable stable meter before he is too rash in rushing to the defence of the common standard of stability.

We have all been impressed by the stability of the BC set. It will stay for days tuned to the one station. This stability would be very handy on the Amateur bands. One means of getting this stability is to use the old flexital system. That is a low frequency oscillator in conjunction with a high frequency crystal oscillator. That is the basis of the frequency meter here described.

In this we haven't to bother about balanced modulators to balance out the crystal frequency. The writer has had experience with valve balanced modulators and does not like them. At the point of balance 50 cycle a.c. modulation on the remaining carrier is present. It has been suggested that the only solution is to use a d.c. filament supply. How? I ask you! However, that is another story. In this case we need not bother about such refinements. Moreover, the troubles that prohibit this unit being used as a control unit of a transmitter, namely the harmonics of the low frequency oscillator, can be turned to advantage to provide check points.

A 6J5 is used as a Pierce oscillator on 6375 Ke. and a 6K8 oscillator and mixer to give output on 7000 to 7200 Ke. It may be preferable to use the 6J5 as the v.f.o. but the aim was to do it all with one tube. An attempt to make a Pierce oscillator using the screen of the 6K8, failed because it was not

reliable enough. Maybe it could be done with a tuned circuit in the screen. The lazy way was used, hence a separate oscillator.

The v.f.o. is a "Clapp" type covering 625 Kc. to 825 Kc. This combination was used because the parts were on hand. Any combination to suit what you have can be worked out. The v.f.o. frequency is lower than that used in BC sets using 455 Kc., even when tuned to 550 Kc.

No great pains were taken with the v.f.o. but its stability is very good. It gives a variation in re-set stability on 7 Mc. of about 200 cycles. That is as would be expected. If used as the controlling oscillator, that 200 cycle variation, when multiplied to 7 Mc. would represent a variation of about 2 Kc. and which as you will agree is quite an amount.

As with any frequency meter the condenser and dial mechanism is of great importance. Look at them in the 221. The condenser the author uses is a standard b.c. condenser in conjunction with a standard aerial coil. The degree of accuracy to which you can read the meter depends on the dial. The better

reasonable care with the v.f.o. and you will get stable results. The output on 7 Mc. across the coil is about 3 volts. The method of coupling to the receiver has to be found experimentally. If sufficient output cannot be had at 14 or 28 Mc. you may add an r.f. amplifier or doubler, but remember you are using this as a frequency meter not as a driver. You have only to hear it not see it.

The calibration of the unit may be done against any standard. The b.c. stations can be used as check points and it is often handy to increase the tuning range of the v.f.o. slightly to take in an extra b.c. station or two. Otherwise the unit must be calibrated from some known standard. It should not be too difficult to get the use of some standard to check against for the short time needed for the calibration.

Besides the desired frequency for the unit you can also hear the harmonics of the v.f.o. as they fall in the band in question. At certain points these harmonics beat against the output frequency and give you check points. These check points can be calculated beforehand.

Take the writer's case where a crystal on 6375 Kc. is used. The formula being  $6375 + x = xy$ , where 6375 is the crystal frequency,  $x$  is the v.f.o. frequency, and  $y$  is the number of the harmonic. In this example "y" has the values of 9, 10 and 11. This gives check points at 7012.5 Kc., 70833 Kc. and 71711 Kc. respectively. Together with two Sydney b.c. stations, this gives five check points in the 40 metre band.

The harmonics are much weaker than the output frequency, some 30 db, and they also tune much more rapidly.

All told, this is quite a simple frequency meter to get going. It does not cover the 80 metre band, but it does not take much ingenuity to see how it could be used to cover this band. This meter is recommended as a very simple means of getting an accurate frequency meter with the minimum of trouble and engineering difficulties.

The plate coil of the 6K8 mixer contains 25 turns wound on  $\frac{3}{8}$ " diameter former with 28 gauge enamel.

## PHILIPS TO SUPPLY NEW A.B.C. TRANSMITTERS

Transmitters for additional A.B.C. stations in country areas throughout Australia have been ordered from Philips Electrical Industries of Australia Pty. Limited.

A total of 12 dual broadcast transmitters is involved, each with an output of 200 watts. It is anticipated that delivery of the complete 12 units will be made early next year, but that at least two will be delivered towards the

the dial, the better the result. With even the simplest dials, it is easy to measure to 1 Kc. on 7 Mc.

In the v.i.o. 0.002  $\mu$ F. condensers are used to increase the tuning range. With the "Clapp" v.i.o. the available tuning capacity is the resultant of the three condensers in series. If 0.001  $\mu$ F. is used and a 500 pF. variable to make the arithmetic easy, the maximum capacity is 250 pF. If you increase to 0.002  $\mu$ F. then you set up to 333 pF.

With the increased capacity the tube effects are lessened. When using a 6AC7 in a "Clapp" circuit and 0.001  $\mu$ F. condensers, you may get a squeezing effect as you increase the tuning capacity. The cure for this is to increase the capacities to 0.002  $\mu$ F. and so more loosely couple the tube.

Some may be worried about using an oscillator in the b.c. range. However all b.c. sets do it and cross all b.c. stations higher than about 1,000 Kc. If you don't believe it, drive a car around using a car radio—see how many heterodynes you can pick up on the high frequency stations. Another point about the v.f.o. is that you can use the b.c. stations as frequency measuring points.

The construction is quite simple. The

\* 32 Harbourne Rd., Kingsford, Sydney.

# Twenty-First Annual Federal Convention of W.I.A.

## Federal Executive's Annual Report

### PRESIDENT'S REPORT

The activities of the Institute have been maintained very satisfactorily throughout the year by all Divisions, and the Federal Committee and Institute thank all Divisional Officers for their loyal support in their various departments.

Membership throughout the Divisions has been maintained satisfactorily, and the financial stability of the Institute, as a whole, is very sound.

In the Federal sphere, your Executive has been able to carry out the majority of the directives laid down for its attention at last year's Convention, it is felt that you will realise that the Institute's progress, as a whole is due, in no small measure, to the policy laid down at each annual Convention, and consequently, the decisions reached at these conferences of prime importance to the welfare of all members.

Your Executive has continued to maintain cordial relations with the officers of the P.M.G.'s Department, and it is desired to remind members that the very important work that this Bureau has done much to facilitate favourable decisions on matters affecting Amateurs throughout the Commonwealth.

Your Executive has also maintained close contact with the I.A.U. during the year, and Items of International interest resulting from our discussions, have been published in "Amateur Radio" from time to time.

It is felt that all members will wish to join with the Institute in offering their congratulations to the Editor and staff of "Amateur Radio" for their successful and untiring efforts in the production of an interesting and valuable contribution to the life of the Institute. Our thanks are also expressed to the Victoria Division for its financial support in this venture.

Congratulations are also extended to those Amateurs who rendered public service during emergency conditions, and their normal maintenance work, was interrupted. The development of suitable equipment for this purpose presents an opportunity for considerable experimentation and originality.

The Treasurer's statement shows the present satisfactory state of Federal finances and our Treasurer is to be congratulated for his careful handling of the very considerable amount of work involved.

The services of the Federal Secretary is deserving of special mention, and he is due to be thanked for the vast amount of effort expended by him in carrying out the duties of an honorary official which occupies as much of his leisure hours.

The Financial Public Officer, the Federal QSL Bureau Manager, the Federal DX C.C. Manager and the Federal Traffic Manager have also done splendid work during the year, and our thanks are expressed to them.

The faithful work of the Federal Vice-President should not be overlooked, as he is a most reliable and conscientious member of the Executive.

It is hoped that the year now before us will offer us a further opportunity to enjoy to the full those facilities now available to us as Amateurs, and it behoves us to do our utmost as individual members to strengthen and support the Institute in its activities.

### TREASURER'S REPORT

It is my pleasure and duty to present for your approval revenue statements and a balance sheet embodying the financial transactions of the Federal Executive for the period from 1st January, 1950, to 31st December, 1950, as at 31st December, 1950. This is an 11-month period, brought about by the fact that Easter occurs approximately two-three weeks earlier than usual.

The documents in your hands consist of the balance sheet, being a statement of our assets and liabilities; the statement of receipts and payments No. 1 and No. 2 accounts, and the statements of income and expenditure.

These documents clearly define the financial position, and are rendered in detail as required by our Federal Constitution.

You will note that we now have two accounts with the Commonwealth Bank. No. 1 Account, taking care of general receipts and expenditure, whilst No. 2 Account is devoted purely to Convention expenses. These two accounts are working smoothly, and satisfactorily cover our accounts.

I think that a perusal of the figures will indicate that economy has been observed, and the balance of £212,10/8 at the Bank against No. 1 Account shows a sound position. The balance and details attached are therefore submitted for your approval.

The budget for 1950 provides a reliable guide for our financial requirements for 1951, and on that evidence I now submit Federal Executive's estimated budgeting for 1951.

QSL Bureau	£10 0 0
Printing and Stationery	10 0 0
Audit of Accounts	10 0 0
Trophies and Prizes	25 0 0
Convention Minutes	20 0 0
Posty. C. 1	15 0 0
Convention Dinner	20 0 0
Convention Expenses	150 0 0
Entertaining	10 0 0
Contingencies	20 0 0

£290 0 0

At this point I wish to advise that due to an impending change of address in my country district, it is necessary for me to leave the Federal Executive this year. Mr. George Manning has therefore been appointed my successor as Federal Treasurer, and I wish him well in his new responsibilities.

Finally, I would like to thank the Federal President and his officers and also all Divisional officers for their splendid co-operation during my four years of office. If I can be of further service, whether in Australia or elsewhere in time, I shall be only too pleased to serve in any capacity for the benefit of the Wireless Institute of Australia and its members.

### BALANCE SHEET AS AT 31st DEC., 1950

#### EQUITIES

Accumulated Fund	£321 5 1
	£321 5 1

#### ASSETS

Current Assets:—	
Cash at Bank	£197 8 11
Certificates on hand	30 0 0
Badges on hand at cost	5 15 8
Stationery on hand	3 0 0
	£230 5 7

Fixed Assets:—	
Eddystone S.W. Receiv.	£50 0 0
Trophy Rememb. Day	35 0 0
	85 0 0

Moved S.A.	£321 5 1
Carried	£321 5 1

Moved S.A., seconded W.A.: "That the report be received."—Carried.

Moved N.W.S. sec. W.A.: "That the fixed assets be written down by 50 per cent in the next annual balance sheet."—Carried.

Moved Vic. sec. Qld.: "That the statement of assets and liabilities be received."—Carried.

### FEDERAL QSL BUREAU

The Federal QSL Bureau functioned smoothly and efficiently for the period under review. No major difficulties were experienced and the operation of the Bureau, particularly the Federal Executive, and particularly from the Federal Secretary was all that could be desired.

Card totals amounted to 48,496. This total is again a reduction on that for the previous year. Comparative totals are 1947-48 (post year), 51,800 and 1948-49, 56,700. Despite the increase in world Amateur population the steady decrease is attributable to the continued publicity given to the addresses of VK Divisional Bureaux and to the greatly increased circulation of the International DX Circular.

Another contributing factor is the poor and irregular conditions which prevailed during the past eight months on the main International DX bands—14 and 20 M. especially for contacts with North America. From what I estimate a good percentage of QSL Bureau traffic due to the decline in traffic, costs for the year were approximately £1 less than the previous year despite a further increase in postage rates of approximately 10 per cent during December, 1950. However, due to the postage increases of the past two years, the true basis of costs—that is, cost of handling per 100 cards—continued to rise. For the year just reviewed this cost was 21 pence per 100 cards as compared with 18 pence in 1948-50, 2.7 pence in 1949-50 and 2.3 pence in 1947-48. Despatches to the Victorian Bureau were again passed by mail, and the good work of VK3KJM and VK3OT. Their efforts in this regard represent a financial saving.

All the Divisional Bureaux functioned well during the year, and, with the exception of the Queensland Division, all Divisional Bureaux personnel remained unchanged. In Queensland, the Inward Bureau was taken over by Jack

Files, VK4JF, from Eric Lake, VK4EL, when the latter was transferred. The Outward Bureau for this Division was taken over by VK4JOM on the sad death of my old friend and reliable QSL officer, Bob Campbell, VK4RC, during the year.

W.A.C. and W.B.E. applications handled during the year totalled 1,000.

Items of interest to Divisional Managers and to Amateurs generally were published monthly in Federal QSL Bureau column in "Amateur Radio."

During the present year I will celebrate 20 years of continuous service as QSL Manager for the W.I.A. During this period upwards of half a million cards have passed through this Bureau.

Following is the balance sheet of the Bureau:

Receipts	£0 7 9
By Credit Balance from 1949-50	7 10 0

.. Advances from Federal Executive

£7 17 8

Expenditure

To Postages on despatches to Divisional Bureaux, W.A.C. correspondence, airmail, and general stationery	£2 15 8
.. Cash and Stamps on hand	1 3 0

£7 17 8

### TRAFFIC MANAGER'S REPORT

Twice weekly schedules have been satisfactorily maintained during the past twelve months by the Divisional Traffic Managers: VK3KARE, VK4KAW, VK5AJT, VK5KSA, and VK5TOM.

A total of 281 (277) contacts was made by the Federal Traffic Manager, VK3ZC, during the year.

It was pleasing to note that with the increase of inward messages to 27 (18) the Divisions seem to be again realising the value of this channel of communication. All messages totalled 25 (27) to a total of 72 (68) addresses.

The figures in brackets are the comparative totals for the year 1949-50.

VK3ZC kindly despatched during periods when VK3ZC was not available.

In the 4½ years since this net first commenced its post-war operations on the 22nd October, 1946, VK3ZC has contacted Divisional traffic stations in 100 (105) countries.

The senior cut-off station in no way less than one, VK5AJT, leads with 282 contacts, VK5KSA with 238 contacts, VK3KARE with 234 contacts, VK5TOM with 204 contacts, while VK4RC has 196 to his credit and was taking over from VK4PHG whose total was 286 contacts.

### FEDERAL DX C.C. MANAGER'S REPORT

I took over the job of DX C.C. Manager during September, 1950, and present herewith a brief report on the activities of the DX Century Club, and the W.A.S. 50 Mc. during the past year.

Firstly the DX Century Club. The following new members were listed for the year ending 31st December, 1950: Phone 7, making a total of 18; C.W. 14, making a total of 34; Open 13, making a total of 43. The total membership is now 100.

I sincerely hope that the "proposed standard DX record card" as presented as an appendix to the agenda of this Convention will be adopted. Its adoption, to my mind, will be of great benefit to the DX C.C. members, and I would like to appeal to all members to support it in a manner similar to that used by the "Q" Magazine Awards Committee in recording in the W.A.Z. progress totals.

I have been forwarding their cards without including the return registered postage. I have had this matter publicised in the magazine and over the months the applicants have been increasing, thereby saving the Institute considerable expense over the year and considerable inconvenience to the Committee.

W.A.S. 50 Mc. The checking of cards and the issue of certificates has proceeded smoothly over the year with ten applicants having qualified for this award. A special gold star has been issued to each applicant claiming an amateur radio card on the air.

During the year regular schedules were kept with WDX of the A.R.R.L. though poor conditions on the DX bands have prevented contacts at the scheduled times over the past few weeks.

Schedules are also being arranged with the R.S.G.B. and the N.Z.A.R.T. These contacts

are mainly for the purpose of checking alterations to the DX lists and the record of doubtful DX stations, etc.

This report is brief, but I trust I have given the Convention some useful information on how that service of the Federal organisation is functioning and progressing.

Moved Tas. sec. Vic.: "That the reports as read be received."—Carried.

Moved W.A. sec. Qld.: "That a letter of appreciation be sent to Mr. R. E. Jones, VK3HJL.

## Minutes of the Convention

### AGENDA ITEMS

1. Moved N.S.W. sec. A.C.: "That in view of the increased cost of postage, the matter of a uniform charge for the handling of both internal and external QSL cards be discussed and decided." After discussion it was agreed that the policy item covered the situation.—Carried.

2. Moved N.S.W. sec. W.A.: "That at the conclusion of the Convention business, an open session be declared to enable members of delegations on matters concerning Amateur Radio."—Carried.

3. Moved N.S.W. sec. Tas.: "That the Convention be adjourned on Easter Sunday if there is any business unfinished at the conclusion of the Saturday session."—Carried.

4. Moved Vic. sec. W.A.: "That the co-operation of other States be sought in making greater use of the 144, 210 and 28 MHz bands of the six and two metre bands."—Carried.

5. This item was withdrawn by the Queensland delegate in view of action already taken by the Federal executive.

6. Moved S.A. sec. W.A.: "That the Convention in future be held every second year, the next in 1953."—Lost.

7. Moved A.C. sec. Vic.: "That the matter of stamp duty on telephone instruments be referred by Federal Executive with the Postmaster General's Department with a view to having some uniform law passed as in the United Kingdom to reduce such interference with reception of radio signals."—Carried.

8. Moved A.C. sec. S.A.: "That Sydney be the venue of the 1950 Annual Federal Convention."—Carried.

9. Moved W.A. sec. S.A.: "That Federal Executive send a copy of the Constitution of the Handbook for the Guidance of Amateur Operators with the Wireless Telegraphy Act."—Carried.

Federal Executive produced copies of the Wireless Telegraphy Act and Statutory Rules, and amplified the relationship between these documents and the Handbook for the Guidance of Operators of Amateur Wireless Stations to the satisfaction of the Northern and Western Divisions.

10. Moved A.C. sec. Vic.: "That any person eligible for membership in any grade residing in a Division can become a member of that Division only."—Carried.

11. Moved N.S.W. sec. S.A.: "That the location of the Federal Executive for 1951-52 be in N.S.W."—Lost.

12. Moved F.E. sec. W.A.: "That the contents of the Institute's Policy Book be reviewed at each Convention to promote continuity of Federal Executive."—Carried.

13. Motion arising from review of Policy Book: Moved N.S.W. sec. F.E.: "That a recommendation be made by the South Australian Division to Federal Executive concerning the appropriate recipient of the W.A.S. Trophy."—Carried.

The Policy Book was read in its entirety and certain redundancies removed by which Federal Executive officially notified all Federal Councillors in due course. The suggestion was agreed to that in future the Policy Book revision be No. 1 item on the agenda.

13. Moved F.E. sec. W.A.: "That Federal Executive receive details from time to time from all Divisions of every annual general meeting regarding Amateur Radio, and that Federal Executive file these in chronological order to assist in the compilation of a 'History of Amateur Radio' some future date."—Carried.

14. Moved F.E. sec. N.S.W.: "That the draft standard membership application form be adopted by all Divisions."—Carried.

15. Moved F.E. sec. Qld.: "That an emergency signal be issued to all stations to transmit signals to comply with agenda item 49 from the 1950 Convention, and that the signal so chosen be submitted to the P.M.G.'s Department for approval and if approved given wide publication in the Australian and throughout the world."—EMTRAF" for phone users, "EMTRA" for c.w. use, "Distress Network Traffic" for phone; "DNT" for c.w.

Amendment: moved N.S.W. sec. S.A.: "That an emergency traffic signal to comply with agenda item 49 from the 1950 Convention for

Federal QSL Manager, from this Convention and Federal Council for his twenty years of service to the W.I.A."—Carried.

Moved F.E. sec. S.A.: "That a letter be sent to the Postmaster General's Department, Postmaster General's Department. He had an unfortunate accident recently and has been in the hospital for some weeks. We might express our regrets at his having met with the accident."—Carried.

Moved Tas. sec. W.A.: "That the minutes of the Twentieth Annual Federal Convention be adopted."—Carried.

phone use, "Emergency Traffic," and for telegraphy, "QRTR."—Carried.

The amendment became the motion and was carried.

16. Moved F.E. sec. Tas.: "That the derogatory publicity given Amateurs in the press during 1950 be discussed with a view to impressing upon the public the fact that Amateurs have certain control over the activities of its members by constant policing of their knowledge of the Regulations and good operating procedure."—Carried.

17. Federal Executive withdrew this item in favour of amendment.

Amendment: moved N.S.W. sec. Vic.: "That the Federal Executive prepare a plan for a wartime amateur network with the Institute if possible using some of the 40, 28, 21, 14, 10 and possibly 28 MHz bands with a view to having these frequencies retained for use of the network time of war and that this plan should be discussed as soon as possible with the Postmaster General and the Director of Civil Defence."—Carried.

18. Moved W.A. sec. Tas.: "That the pages of QST should be made more open for publication of letters and more opportunities be given with matters of general interest to Amateur Radio."—Carried.

At this stage the Chairman adjourned the Convention to enable the Chairman to discuss with the Editor matters relative to the magazine.

19. Moved F.E. sec. W.A.: "That the Federal Executive be directed to take the necessary action to amend item 21 of the Federal Constitution of the Wireless Telegraphy Act as amended 1947 by deleting the words 'within 30 days immediately preceding' and inserting in lieu thereof '60 days prior to'."—Carried.

20. Moved Tas. sec. W.A.: "That the uniform Divisional constitution be discussed with a view to the finalisation of the draft if possible."—Carried.

20. Moved N.S.W. sec. S.A.: "That draft No. 2 of the Uniform Divisional Constitution be submitted to the Divisions for ratification by their members."—Carried.

21. Moved Qld.: "That Federal Executive be instructed to approach the P.M.G.'s Department on the matter of frequency allocation pointing out that a properly constructed and calibrated absorption type meter is more useful and foolproof than the heterodyne meter owing to the fact that it gives a visual indication, is not subject to operator's resonance, is in general cheaper and more likely to be used properly."—The motion lapsed for want of a second.

22. The Queensland delegate withdrew this item in view of item 21 lapsing for want of a second.

23. The Queensland delegate withdrew this item in view of the factual explanation given by the Chairman.

24. Moved S.A. sec. Qld.: "That the matter of Commercial Stations in the Amateur Bands be discussed."—Carried.

The item was discussed and the Chairman gave the necessary information that every report sent in by the official Divisions be forwarded to the Wireless Branch of the Postmaster General's Department where a sizable file was in evidence. He further indicated that little could be done by the Australian administration until such time as the Atlantic City findings came into force.

25. Moved W.A. sec. S.A.: "That the minimum age limit for the granting of the A.O.C.P. and Amateur license be 18 years."—Carried.

26. Moved F.E. sec. S.A.: "That Federal Executive approach the P.M.G.'s Department with a view to requesting that future A.O.C.P. examinations be conducted in the form of a 'quiz' as adopted in New Zealand."—Carried.

27. Moved Qld. sec. Vic.: "That Federal Executive be encouraged to establish W.A.S.—meaning 'Work All Australian States'."—Carried.

The Chairman indicated that with the assistance of the Postmaster General's Department the Federal Executive would co-opt a sub-committee from that Division to formulate a detailed set of rules for submission to Federal Council.

28. Moved Tas. sec. W.A.: "That Tasmania be granted separate country status."—Lost.

29. Moved S.A. sec. W.A.: "That the DX C.C. be discussed."—Carried. A discussion took place.

30. Moved F.E. sec. Vic.: "That a standard DX C.C. form be adopted for use by each licensed Amateur claiming DX C.C. the form to be made available to applicants at a cost not exceeding 10/- per copy."—The DX C.C. rules as adopted at the 1950 Convention were to be amended to incorporate this form."—Carried.

31. Moved N.S.W.: "That the Federal Executive be censured for its failure to run the Ross A. Hull Memorial Trophy in 1950."—Carried. The motion lapsed for want of a second.

32. Moved N.S.W. sec. W.A.: "That the VK-ZL Contest for 1951 be conducted by the N.S.W. Division on behalf of Federal Executive, this Convention to act as the VK-ZL 1951 Contest Committee."—Carried.

33. Moved N.S.W. sec. W.A.: "That Federal Executive co-opt the New South Wales Divisional Contest Committee to function as the Federal Executive Contest Committee for the year 1951."—Carried.

34. The Queensland delegate withdrew this item in lieu of item 23.

35. The Queensland delegate withdrew this item in view of the explanation given by the Secretary regarding previous correspondence between the I.A.R.U. and the Federal Executive of the Wireless Institute of Australia with reference to the I.A.R.U. Convention.

36. This item was withdrawn by the South Australian delegate in view of the discussion arising out of item 33.

37. Moved N.Z.A.R.T. sec. W.A.: "That the request by the N.Z.A.R.T. that the W.L.A. include rules 7 and 8 of the 1950 VK-ZL Contest in place of rules 8, 9 and 10 as included in the standard set of rules admitted to the 1950 Convention by the South Australian Division with a view to standardising the rules between the two societies in future."—Carried.

38. Moved N.S.W. sec. Tas.: "That the revised rules for the VK-ZL International DX Contest be admitted to the minutes of the twenty-first Annual Federal Convention as an appendix."—Carried.

39. Moved S.A. sec. Qld.: "That the Northern Territory be classed as an separate area for Contest purposes."—Carried.

40. Moved F.E. sec. Vic.: "That the rules for the V.H.F. Contest be discussed."—Carried.

A discussion took place.

41. Moved Tas. sec. Vic.: "That the standard Contest Log Sheet be adopted for all Australian Contests and that no entry be accepted unless submitted on this form."—Carried.

42. Moved Tas. sec. Vic.: "That (a) The winning Division for the R.D. 1950 Contest be decided by taking the average of the first six logs as at present and then adding to it a bonus arrived at by multiplying that average by the ratio of the logs submitted by that Division to the total of Amateur licences in that Division at the time of the Contest. E.g., Total points equals—

Number of Logs

Average Score (1 plus number of licences) (1 plus number of Divisions)

and (b) That the present scheme of graduated points for contacts between the various Divisions be retained."—Carried.

43. The South Australian delegate withdrew this item in view of item 41.

44. Moved F.E. sec. W.A.: "That a special per capita levy of 8d. per member be made on Divisions to cover the cost of the purchase of a trophy and other expenses for Federal Executive records and correspondence."—Carried.

After discussing the position of Federal finances with the Convention assembly, the Chairman and Federal Executive withdrew the request for a special per capita levy of 8d. per member if the Convention will agree to the purchase of this equipment and be prepared to submit to the Divisions another call for assistance at a later stage if necessary."—Agreed.

The motion as written was withdrawn.

### GENERAL BUSINESS All Divisions To Raify.

1. Moved N.S.W. sec. W.A.: "That the policy concerning the R.A.A.F. Wireless Reserve or any substitute plan be discussed and determined."—Carried. The matter was discussed at length.

1a. Moved N.S.W. sec. W.A.: "That the policy of the Institute concerning co-operation with the Defence Services be encouraged its members to participate in any official recruiting or defence plans."—Carried.

2. Moved N.S.W. sec. Vic.: "That Federal Executive investigate immediately the alleged importation of wireless equipment and amateur transmitting equipment, and if necessary press to the highest possible authority for its removal."—Carried.

The Chairman gave an assurance that this matter would be taken up with the correct authority in the strongest possible terms within

(Continued on Page 7)

# N.S.W. North Coast Zone Easter Convention At Urunga, 1951

REPORT\* BY DAVE EVANS, VK2AYE

When a few Radio Amateurs of the North Coast Zone arranged a "get together" at Urunga three years ago, they little realized to what extent the idea would develop. The meeting became an established annual event, and the Third Easter Convention at Urunga this year attracted over seventy-eight Amateurs from far and near.

By noon on Good Friday, fifty Amateurs had registered and when the list was closed at night it had completed the formalities of registering. In this connection it should be remarked that a number of visitors did not register and anybody who attended and whose name do not appear on the list are requested to advise Hart VK2JC so that the list may be completed for record purposes.

List of registrations is as follows: 2APB and XYL 2AXZ, 2EA, 2ACU, 2ZM, 2AVG, 2AJA, 2XO and XYL 2AOB, 2ADT, 2WQ, 2KR, 2PA and XYL, Mr. and Mrs. Henry Colic, Wall, 2EJ, 2APB, 2AFB, 2AJB, 2AFB, 2AJC, 2AJD, 2AJE, 2AJF, 2AT and XYL, 2ISB, B. Cross (associate), 2OF, 2IT, 2YM, 2FP and XYL, 2AJB and XYL, 2AJT, 4JU, 2ZC and XYL, 2KN and XYL, 2EL (O.L.C. Radio, Sydney Power), G. C. G. Chisholm (Associate), 2AB, 2ABD, 2ABF, Percy Sars (associate), 2DK and XYL, J. Adkins (associate), 2AMV and XYL, J. Patterson (associate), 2XP, N. Moody (associate), 2VU, 2EJ, 2MC, 2ACB, 2AJA, 2ACO, 2AJB, 2AJC, 2AJD and XYL, 4OG, 2CN, 2UY, 2XY, 2ABF, 2YC, 2ABU and XYL, 2ASO, V. Webb (associate), 2AWG, 2AYE, 2AAP and XYL, 2UC, 2YU and XYL. Last minute cancellations included 2WH, and 2LH and XYL.

Friday was spent in a friendly get together fashion with much incidental rag-chewing, the focal point of interest being Cliff Retallack's famous "Do-Me" shack and Hart Wall's newly acquired "Yule Dhu" shack. By general consent and inclination the ladies and tea drinkers were entertained by Mrs. Wall at her home, the while the really thirsty souls slaked their dryness at the "Do-Me."

Those who had brought portable gear along for the contests were fully employed in testing and calibrating their pieces while the crew transportation and the gear was inspected by the chaps. The "Do-Me" shack, as Official Headquarters of the Convention, was a hive of activity and excitement. There was a constant flow of conventionists, which increased in volume as each new arrival was greeted. Possibly the busiest bee in the hive was Colin Wall who had the job of Registrar—in the absence of our Official Recorder, Bob 2DTC, a glance at the list of visitors will confirm that for a single-man chore, Colin did a worthy job.



Challender Remembrance Trophy

\* From Notes supplied by Hart Wall, VK2JC, and article in the Bellington "Courier-Sun" of 8th April, 1951.

Saturday maintained the promise of good weather and last minute touches to rigs were carried out. The main event set for Saturday was the Gerry Crouch Memorial Contest which covered portable field operation on 7 Mc. for three hours within eight miles of Urunga. Disparity in rigs was accounted for by a power input handicap. This event was won by 2AFB and 2ABD with 100 watts each, followed by Jim 2ZC.

It was particularly gratifying to see these two operators determine the home for the trophy since they were both closely associated with the late Gerry and they had made many important decisions for him. When won, then the replica of the trophy was to be presented to Gerry's father and mother. A fine gesture which was truly appreciated by Mr. and Mrs. Cowan. The trophy which is illustrated here was donated by friends of the late Gerry and it was found that, after the trophy had been purchased, a substantial amount of cash was on hand and this was forwarded to Gerry's widow, Mrs. Lorna Challender, and her sons, Berry and Terry.



Gleeson Trophy

The list of contributors to the Challender Remembrance Trophy is as follows: 2GM £10/5/5, 2DK £2/1/8, 2GU £1/0/10, 2ZC £1, 2XO £2/2ER 1/2, 2YC 10/-, 2AYE 10/-, 2ASO 7/6, 2APB £1/1/2, 2HC 10/-, 2CI 10/-, 2SW 5/6, 2ACZ £1/1/2, 2EJ 2AVP 10/-, 2PA 10/-, 2ZC 10/-, 2ADT 8/-, 2ASJ 10/-, 2EZ 2/1, 2AYE 2/1, 2CS 10/-, 2WV and Mrs. Watt £2/3/-, 2AWP £2/0/0, 2JC £1/1/-, 2ASB £1, 2ASF £1, 2DG 10/6, 2NBS 10/-, 2TH 10/-, 2XP £1/0/4, 2EJ £1, 2AVP 10/-, 2ASB 2/1, 2AYE 2/1, 2ASQ 2/1/-, 2ARA 10/-, 2VH 2/1, 2ZC £2/3/-, 2YL 10/-, 2ZAH 10/-, 2ANA 8/-, 2RA £2/3/-, 2XY 10/-, 2XQ 5/-, Assoc. John Adkins £1; total donations £53/14/8, add Guessing Comp. for £100, QSL £1/6/0, add a grand total of £12/1/8. The cost of the Challender Trophy was £12/1/8, leaving a balance forwarded to Mrs. Challenger of £36.

The replica of the trophy was presented to the Convention by the N.S.W. Division of the Institute.

Saturday evening saw the chaps assembled to wave our ladies off for a bus trip to Coffs Harbour where they were the guests of Jack 2ADN to a picture show. The group then settled down to an important and informative meeting by Bertie Gilmour (VK2ZJ), of the N.S.W. Police Department, on the pros and cons of establishing an emergency network in which Amateurs could co-operate fully with the Police Department in the event of an emergency. The systems of control now under consideration by the Committee of various interests involved. It is hoped that, at an early date, a statement fully outlining their proposals will be made available to A.R.R.L.

Bertie's lecture was well received as it cleared up many points which had, up to this time, been rather mystified.

Mr. Ernie Crouch, Chief Engineer of 2NZ and 2GZ, gave a lecture on the new antenna at 2GZ (Inverell) which, it was hoped, would set the end of fading on signals from that station.

Jack 2AJC had the dubious honour of introducing recognisable tunes from 2.5 Mc. to the 50 Mc. Jack went to some pains to point out the songs to be met and the way to overcome them.

On the return of the ladies from Coffs Harbour, refreshments and rag-chewing became the order of the evening and then commenced what must be noted the most important part of the Convention. This was truly "amateur" concert in which the ladies did a great part to maintain a high standard of entertainment until the "wee sma' hours."

Sunday morning was a very pleasant occasion when, with the co-operation of the owners of fifteen or more launches, we were treated to a cruise to the beauty spots of the Lower Hunter including The Islands. After lunch the operators lined up for the 14 Mc. hidden transmitter search. The Gleeson Trophy for this event was won by Harold 2AJA who ran the transmitter to earth in fifteen minutes. The replica of the trophy was donated by the N.S.W. Division.

While their men were madly chasing the hidden transmitter, the YFs and XYLs were taking risks with LCC's atomic cocktails while their partners were at a quiet three-way table. This was won by Mrs. Masterton, XYL of 2DK. The "lucky number" was drawn and the recipients of the prizes were 2PF, Ernie and Mrs. Baker. In a voice recognition contest number 2000 was won. Antennas were run off a wire recorder and the winner of the event was Mrs. Russell Watt, XYL of 2WT.

At the "Do-Me" shack, Percy and Mrs. Sarn with Mrs. Huegill, entertained the ladies with a special viewing of the world famous quads. This was a most interesting and informative affair and our thanks are due to Percy and Betty for their co-operation. As a matter of interest, Percy hopes to have his call sign soon, but it won't be VK2QUAD although the quads will be featured prominently.

The final contest of the Convention was the North Coast Scramble. Object: to work as many stations as possible within one hour; Conditions: any power input, any location, any frequency. The trophy was awarded to 2AJC. The winner of this event, made a good showing to prevent Harold 2AJA from getting a "hat trick" and carting all the trophies back to Newcastle.

Sunday evening was given over to the usual annual social evening at which we were the hosts of the 1000-people of Urunga. The school of Arts was packed to capacity long before the time of starting and extra chairs were imported from adjacent halls to seat the late-comers. Our good friend Associate Ted Hamsey again attended with a series of amateur films which were well received. After a spot of community singing, Ivan 2IS conducted the



United Radio Distributors Trophy

"Amateur Hour by Amateurs" and it was so appreciated that Ivan has been appointed Official Committee for the 1952 Convention.

Mr. M. Goldstein, President of the Shire Council, presented the plaque to the citizens of Urunga at the time the company of the Radio Amateurs once again and deservedly was a hearty welcome at all times. His remarks were endorsed by Mr. D. Fischer, the Secretary of the Urunga Progress Association, a happy little speech spiced with topical interests.

On behalf of the Council and members of the New South Wales Division, Mr. J. Corbin 2YC made a speech acknowledging the welcome and the good will of Urunga. Not only was this event the presentation of prizes by Convention Chairman Hart Wall 2IC and Convention Organiser Cliff Retallick 2XO. At the conclusion of the prize giving a hearty vote of thanks was given to Mr. Hart Wall, for which he put into the arranging of the Convention and the hope was expressed that next year's Convention will be the biggest and best ever. Mr. Fischer expressed a wish that the position of organiser for 1953 should be taken over by a younger man.

Full list of prize winners is given here: **Gerry Challenger Remembrance Contest** (Challenger Trophy)—1st: 2AHA, Harold Whyte, replica of trophy and £1 cash prize; 2nd: 2ZC, John Cowan, replica of trophy and 500 QSL cards; 3rd: 2ZC, John Cowan, 85; **Longest Distance Worked**: 2AHA, Harold Whyte, replica of trophy and £5 cash prize; 2nd: 2ZC, John Cowan, 21/2 ft. North Coast Scrabble; 3rd: 2AHA, Harold Whyte, replica of trophy and 500 QSL cards; **Hidden Transmitter Search (Olestone Trophy)**—1st: 2AHA, Harold Whyte, replica of trophy and £5 cash prize; 2nd: 2ZC, John Cowan, 21/2 ft. North Coast Scrabble; 3rd: 2AHA, Harold Whyte, replica of trophy and 500 QSL cards; **John Meagher Trophy**—1st: 2AHA, Harold Whyte, replica of trophy and 500 QSL cards; 2nd: 2ZC, John Cowan, 85; **Longest Distance Worked**: 2AHA, Harold Whyte, replica of trophy and 500 QSL cards; **Memorandum of Votes**: Mrs. Russ Watt, Pearl Necklace and Ear-rings; **Fishing Competition**: 1st, John Deller, 2nd: Colin Wall, Name of 2YC; **Shirt Show**: Jim Dowling, 2AHA, name "Vive Dico"; **Ear Baskers' Award 1950-51**: Dave Evans, 2AYE; **Longest Distance Traveled to Convention**: Frank O'Dwyer 3OF, Guessing Competition for £1,000; **QSL Cards**: 2AGD, George Lee.

The concert concluded at 10.30 p.m. to allow more travellers to get some much needed sleep before the start of the Convention. The next Monday morning was occupied by a post-mortem meeting where many good ideas were passed along to Cliff, our Organiser, regarding improvements for next year's show. An outstanding suggestion was that it would be dangerous to charter a bus to the Interstate Tours type to bring Amateurs from Sydney and to pick up en route. If possible such a service may be set up to include VR3 and VR4 and the subsequent information office. Since the Convention Cliff (always on the ball) has contacted a Sydney Company who have expressed their willingness to co-operate and full details will be published in "A.R.Y." as soon as possible.

It will be realised that Conventions of this nature take a tremendous amount of organising and to Cliff Retallick and his good wife all participants extend a really heartfelt vote of

thanks for their selfless efforts, particularly in view of the fact that Cliff's health has been indifferent for some time past and the enormous expense of energy has assisted him to maintain his usual high standard of work. His gratitude is also due to Perce Sara who has been Cliff's right-hand man before and during the Convention.

The Convention Committee desire to thank the various clubs and districts who extended their thanks to all who assisted in any way to ensure the success and smooth-running of the Convention. **Gleeson Bros.**, trophy for 144 Mc. W.M. Division, **Amateur Radio Distributors Flyer Ltd.**, trophy for North Coast Scrabble; **Friends of late Gerry Challenger**, trophy for Portable Field Operation; **Eric Ashley, 2ASB**, for printing the programme and helping with the organisation; **QSL Cards** and **Pack of Canasta Cards**; **Norm Meader**, for cash donation and acting as Official Photographer; **John Hall**, donation of Duchess Set (hand worked); **Dr. Hewitt**, cash donation for prize in Challenge Cup competition; **John Martin Pty. Ltd.**, rings and Necklaces; **Harry Fowles, 2AYF**, donation of Scope Iron; **Dave Evans, 2AYE**, donation of 1,000 QSLs for Guessing Competition in aid of Cliff's Trophy; **Canasta and Members of N.S.W. Dist. W.I.A.**, donation of all trophies; **Jack Green and his Mother**, for their help in the Sunday evening concert; **The Unknown Young Ladie**, for his entertaining act with his guitar and belly songs; **John Wolf and Dan Fasier**, for the use of their "shacks"; **Mr. and Mrs. Daley**, for the loan of their cottage; **"Chick" Macartney and Norm Meader**, services to Postmaster Officer; **Jack Geras, 2ADW**, to organise the Photo Night; **Ted Hamey**, for the bunches of bananas and putting on the 15 min. show; **Jim Dowling**, for the "welcome" cards; **Nicholas Gleeson and Eric Ashley**, our general help at the Ocean View Hotel, without whose co-operation the Convention could never be successful.

For the information of Sydney Amateurs, Messrs. John Martin Pty. Ltd. have the trophies on display in a special window show featuring Amateur Radio activities. A number of photographs taken at the Convention will be printed and copies may be obtained by those interested.

In conclusion, the Convention Committee desire to thank all who attended and ensured the success of the show and sincerely hope to meet them all again next Easter for Amateur Radio's Best and Brightest Show.

## FEDERAL CONVENTION

(Continued from Page 5)

seven days of the conclusion of the Convention, and that a copy of all correspondence would be forwarded to Federal Councillors.

3. Moved N.S.W. sec. Vic.: "That it be the policy of the Wireless Institute of Australia NOT to refuse any facilities granted by the Postmaster General."—Carried.

4. Moved N.S.W. sec. S.A.: "That the Federal Council accept the last figures concerning 'Amateur Radio'."—Carried.

5. Moved F.E., sec. W.A.: "That Federal Executive be instructed to take the necessary action to amend Section 28 of the Federal Constitution by (a) Deleting the words 'The Headquarters' in Lines 3 and 4 and inserting the word 'the' in lieu thereof; and (b) Deleting the words 'The Headquarters' in Line 7 and inserting the word 'appropriate' in lieu thereof."—Carried.

6. Moved Vic., sec. W.A.: "That Federal Executive approach the Postmaster General's Department with a view to allowing mobile operation from mobile stations to be permitted on the bands of 50 Mc. and above, such permission to be granted without applying to the Department."—The Victorian delegate withdrew this item with the agreement of his secretary in view of the explanation given by the Chairman.

7. Moved Qld., sec. Tas.: "That the P.M.G.'s Department be approached with a view to permitting the postage rates on QSL cards as second-class mail matter (post card rates) so long as such cards bear only information concerning radio contacts referred to on the cards."—Carried.

8. Moved N.S.W. sec. Vic.: "That the P.M.G.'s Department be asked to allocate the prefix VR3 to Amateurs resident in the Northern Territory."—Carried.

9. Moved F.E. sec. Vic.: "That Federal Executive be authorised to purchase a typewriter and a filing cabinet for Federal Executive records and correspondence, the cost to be met from No. 1 account."—Carried.

## Ross Hull Memorial Trophy

### Results of 50 Mc. Contest, 1951

#### Open Division

(1) VK5QR	3380
(2) VK2ADT	2851
(3) VK5EC	2564

#### Individual State Winners

New South Wales—	VK2ADT
Victoria—	VK3IM
Queensland—	VK4KK
South Australia—	VK5QR
Western Australia—	VK6DW
Tasmania—	VK7LZ

#### New Zealand Winners

(1) ZL2BZ	1117
(2) ZL1WW	980
(3) ZL2DS	420

## Low Drift Crystals FOR AMATEUR BANDS

ACCURACY 0.02% OF  
STATED FREQUENCY

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# DX NOTES BY VK4QL

Overall, April has been my worst month for DX. Stations in the south do not seem to have fared so badly, judging by the stations I have heard them working or calling. ZLs also seemed to be doing OK.

This month produced one of the greatest DX hauls that has been on for a long time due to the arrival of CMBAA and CMBAA. CMBAA went over to Guadalupe Island for approximately 12 days to operate as FGIXA. KV4AA made an effort to repeat that after zero hour, humans with ears were listening for more than the call FGIXA. Nothing was heard on the band for a couple of days and one overseas station was heard to remark, "maybe he forgot his crystals." ER4AA was heard on the 17th, he apparently showed up and was worked by some of the VK gang; just who I do not know as I was not on that night. YK5GW worked him one morning round 2000 G.M.T. but could not hear him. FGIXA disappeared for a brief period on 3404, but the band suddenly gave out and he went with it. The following day he was audible from about 0600 G.M.T. and worked quite a few VK on one occasion. Unfortunately his own signals were not audible here. From information heard on the band, there are apparently other stations signing the FG prefix. 2DG said he worked FG6SP.

The survey of the bands is not very satisfying this month. 3.5 Mc.—Haven't been on this band to any extent and any visits were of no DX value. 7 Mc.—Worked OA4EL there one night round 0800 G.M.T.

7 Mc.—This band has fallen right away for DX and is confirmed by a contact with one or two DX stations that were worked in Europe and South Africa. W signals in the evenings have been very erratic and not consistent for two consecutive days. One evening G8CL was heard about 0730 G.M.T.

## DX C.C. LISTING

### PHONE

Call	No. Ctr.	Call	No. Ctr.
VK3JD	1 185	VK5AJ	8 114
VK3EE	10 155	VK5AWWW	14 112
VK3K	3 147	VK5AW	17 104
VK3EKW	4 145	VK5AOT	13 102
VK3BZB	3 141	VK5AHA	15 102
VK4AKS	9 138	VK5AWF	16 101
VK3KJ	11 132	VK5AWG	18 100
VK4AHR	12 130	VK5AWH	19 100
VK3SD	7 129	VK5AJE	7 100

### CW

Call	No. Ctr.	Call	No. Ctr.
VK3BZ	5 163	VK5KX	30 114
VK3FJH	15 160	VK5DA	7 113
VK3KJ	9 159	VK5E	17 112
VK3EBO	2 158	VK5BO	16 104
VK3CN	1 151	VK5AJE	21 106
VK5GSA	25 150	VK5KRC	13 107
VK3QL	5 141	VK5YD	27 105
VK3KJ	10 139	VK5FH	21 105
VK3KB	10 138	VK5JU	28 104
VK4HR	2 135	VK5YC	34 103
VK3GW	16 132	VK5APA	14 101
VK5R8	18 132	VK5NC	18 101
VK5R9	22 132	VK5DX	30 101
VK4RF	1 131	VK5ZD	29 100
VK3EK	3 132	VK5TRK	28 100
VK4DO	20 117	VK5KJ	34 100
VK3JUM	12 116	VK5AJE	30 100
VK4FJ	29 115		

### OPEN

Call	No. Ctr.	Call	No. Ctr.
VK3KJ	4 902	VK5JAA	43 114
VK5R9U	8 179	VK5AOT	14 113
VK4KHS	7 173	VK5KRC	21 110
VK3HGG	3 171	VK5KZB	34 110
VK3FJ	14 169	VK5AF	24 109
VK5KJW	13 168	VK5ZD	23 108
VK3DII	2 160	VK5YJ	11 106
VK3JE	12 154	VK5JU	33 105
VK4EL	10 158	VK5JAWN	36 105
VK3KJ	24 155	VK5FH	19 104
VK4DO	15 145	VK5U	27 104
VK3IMC	5 137	VK5PJ	44 104
VK3JOP	18 137	VK5HZ	17 103
VK4EDD	22 135	VK5KBS	30 103
VK3HJ	19 135	VK5KJ	20 103
VK4FJ	32 135	VK5HO	36 103
VK3ADE	25 133	VK5DX	42 103
VK5AHA	28 132	VK5TRK	31 102
VK5AHR	26 132	VK5ATT	35 102
VK3HJ	16 130	VK5KWC	8 102
VK5HT	41 117	VK5TIG	20 100
VK5LZ	23 116	VK5AWW	45 100
VK5FL	26 116		

Listings for the month are very few, even the usual VKs seem to have deserted this band. One or two, ZS, ZSTD, CT1DJ, VQ2GW, DL4DNN, 2DG hooked VSBAM and CT1HS, JFT worked VPSB and VK5LZ.

1 Mc.—This band has been very patchy, at times high solar noise, but the Europeans have started to appear at the end of the month round 2030 G.M.T., but extremely erratic and hard to raise. On the 14th a minor opening appeared in the afternoon. One night a commercial station was heard playing some of the very chirpy and broad note. They were continually holding their hand on dits, and moving their v.f.s back and forth over the 1 Mc. range. A series of hicks happened with FB2EZZ one night. The band was in poor shape due to Solar noise, when FB2EZZ appeared. He disappeared again during the second over and was not heard again. Gave him a try on the 17th, he was heard again from 0800 G.M.T. has been OK for Europe in Maryborough, then dead for a few hours, but improving round 2000 G.M.T.

3 DG heard stations signing SL4CM and SL4PA, and their QTH was given as Island of Gotland, and apparently is not a new country, being part of Sweden. Talking of new prefixes, Q54 is Q54A and Q55 is Q55A, not a new country, so if you have chalked it up as one, it's bad luck.

Listings for the month here are: XX5BI (Navy 3234, F.P.O. Frisco), FGIXA, ZB1BZ, ZB1L, CR5AF, FB2EZZ, VRIG, FVTC, SU1AD (Cairo, QSL 100), ZD4AF, VPSCDI, VPC5, UG5WWD, UP2KBC, E9Y, YS10, 954AL, EASA, EASA.

4 DG worked/heard stations like EK1AO, M88B9J, ZK1AB, PK6ER, KJ8AL, EASA, ZB1BZ, VPSFO, VPMGJ, VPSD, PY1GJ, ZC5UNJ, HSSL (which I think should be HHSL), VK1RE, and CS4FA.

5 DG lists PJ5RE, FG6IP, VPMAL, FC5CD, and FG1XA. JANN landed HI5U/Trieste.

35 Mc.—Have very little on this band. Any time I have listened the band has been mostly poor or only the usual Pacific stations coming through.

An interesting piece of information comes from KG6HGU, on a matter I mentioned previously, as to certain restrictions on Amateur operation in the Pacific area by the U.S. authorities. Stations lying west of 170 degrees longitude are prohibited to operate on 7 Mc. Stations west of KG6 are not permitted to operate on 7 Mc. This includes JA stations. All stations operating in the Pacific (U.S. being registered by the U.S. Navy authorities.

3 DG, ex-IPG is now operating again, and asks all who are anxiously waiting his QSLs, not to panic. All is under control and QSLs will soon be on their way. These boys must have a colossal job making up the backlog of cards. VKHMG has done his.

2 JANN has now 88 countries confirmed: 2DG 163, the latest being ZS5K and VQ2GW. ZC5 has been confirmed as being from KJ8AL, VPSCDI, VQ2GW, AR5AB, UBS5R, VRIAL, VRIIF and VK1HV. New ones worked this month have brought my total worked to 151 with 88 confirmed, cards being from ZE5JO, YO2BC, ZS5K, CR7BC, 954AX and ZC5.

Notes have been prepared a little early this month as I am having a spot of leave, so if anyone "gets" them arrive this month too late, it will be included next month.

My thanks to all those who have helped out this month with the material to make up some "gen".

The thought for the month, is a suggestion that we all look at the T section of the RST code, and see that "T" means pure note, not a rough one. Cheers till next month.

## IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

JUNE, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article on the use of the charts. The following pages give some hints on how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	North America	San Francisco
3.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

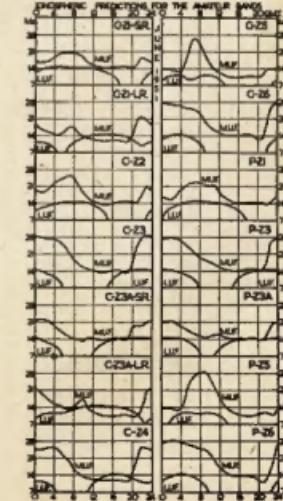
The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z3 and Z4 for the current months, as chart P-Z3 would be essentially similar to chart C-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

### USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases (Z3 and Z4) it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

The Prediction Service welcomes comments on the accuracy of its predictions. These should be forwarded through the W.I.A.



### CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."



# Compact 40 Metre Antenna

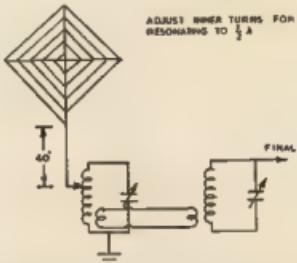
BY TED CAWTHON,\* VK5JE

The author has been experimenting with an antenna which may interest those Amateurs who, due to lack of space, may not be able to put up a half wave antenna for operation on 7 Mc. The writer was only able to put up one mast which was very close to a fence and which prevented a sloping antenna being used in a westerly direction, thus ruling out early morning European contacts. As the mast is 40 feet high, the antenna was hit upon trying to make the antenna tune to a half wave in preference to a quarter wave due to the sandy nature of the surrounding terrain.

At the top of the 40 feet vertical a frame consisting of two crosspieces at right angles, each one four feet long, was attached. A number of "button" type insulators were screwed to the cross members, spaced about three inches apart, and the remaining portion of the antenna wound in the form of a spiral until the antenna resonated at a half wave of the desired frequency. Due to the inductive effect of the coil the full 26 feet or so may not be needed.

The procedure to tune the antenna is as follows: Line couple the final plate coil to the antenna coupler and tune the latter to resonance, being careful not

to over-couple. Attach the antenna to the antenna coil and note how the tuning condenser has to be turned to effect resonance. If the condenser has to be reduced in value then the antenna is too long and vice versa.



Adjust the inner turns of the top loop until attaching the antenna to the antenna coupler does not affect its tuning. Due to various factors such as varying the link placement in the coils it may be a little bit tricky to get the adjustment right at first trial. Attaching an earth to one end of the antenna coupler may be advisable—the writer uses this method.

However, this antenna is only put forward as an idea and may be worth experimenting with. On 7 Mc, early morning European reports range from S7 to S5 and the DX quoted in the "DX Notes" have all been worked with it. On 14 Mc, during the B.E.R.U. Contest, when conditions were rather poor, VS6 (S9), VS1 (S7), ZS (S4), GW (S5), and VU (S8) were worked with the reports as shown.

On 3.5 Mc, the antenna failed to raise Ws during the A.R.R.L. Contest, but three S7 reports were received from ZL which was encouraging and further experiments are to be made on this band.

A few things to think about. See if the orientation of the frame is of any help. Keep the insulation good on the frame and the wires rigid or wet weather will cause erratic results. Turn a deaf ear to the XYL and others who say the outfit looks like a radar set-up on a battleship. Good hunting!

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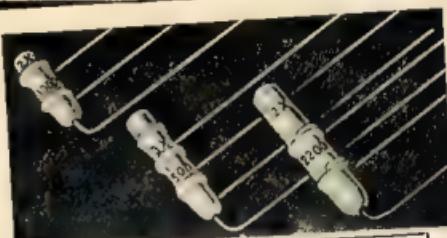
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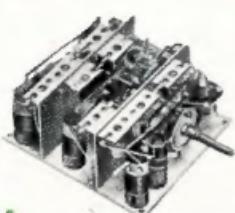
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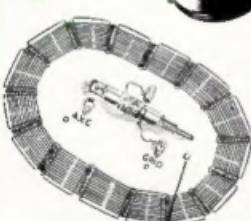
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